Swanson Middle School
Differentiation Report
Third Quarter, 2021-2022

Grade 6 English **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum ● **Research-Based Informational Writing** ○ Compare/contrast details in texts ○ Analyze ideas within and between sources providing textual evidence ○ Draw conclusions and make inferences based on explicit and implied information ○ Describe cause-and-effect relationships ○ Publish high-interest digital magazines	**Differentiation Strategies Offered** ● Student-selected topics for research-based informational writing ● Focus on complex issues within research topics ● Student-led interactive activities to foster deep discussion, critical thinking, and analysis of tiered text ● Refinement of concise evidence-based analytical writing skills in an effort to help students critically and successfully respond to open-ended questions ● Extension opportunities available to all Grade 6 English 6 students included writing contests sponsored by Alexandria Library and Washington Wizards. Congratulations to our two Grade 6 Swanson Admirals who were recognized by the Alexandria Library for their writing!
Grade 7 English **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum ● **Fantasy Book Clubs & Archetypes** ○ Students discussed the hero's journey, character and setting archetypes, big ideas, and theme. ○ Students wrote a literary analysis essay to extend their writing to a higher level through use of transitions, leads and conclusions that connect with readers and the broader society, and a more seamless integration and use of evidence to support their thesis.	**Differentiation Strategies Offered** ● Students selected novels for the Fantasy Unit. Book offerings included a range of difficulty. Ultimately, students were put into book groups where they could discuss with peers at a similar reading level the range of topics covered in the unit. ● For the Companion Book Project, students were given choice in topic for their informational text, and given the option of showing their understanding of character, setting, plot, or theme through a variety of mediums. ● Flexible grouping within the unit for interest and challenge level.

Grade 8 English Curriculum (i.e., summary of standards/content instructed)	**Instructional Methods & Practices**
Curriculum ● Persuasive Essay ○ Research a problem in the world that deserves attention ○ Compose a powerful essay to advocate for change in our world ○ Collect and synthesize information from multiple sources, noting misconceptions, main ideas, conflicting information, point of view, and/or bias. ○ Evaluate resources for credibility and validity. ● Grammar Bootcamp ○ Understand the mechanics of grammar and punctuation. Including ○ Sentence structure and variety ○ Verb agreement ○ Pronoun usage and agreement ○ Comparative and superlative adjectives and adverbs ○ Comma usage ○ Commonly Confused Words ○ Brainstorm, draft and compose a written essay in response to a prompt	**Differentiation Strategies Offered** ● Student choice in topics for projects and for independent reading. Challenged to read at or above their Lexile. ● Set individual reading and writing goals ● Provide instruction in research skills needed to conduct an independent study in student's interest area ● Confer on writing with direct feedback from Resource Teacher for the Gifted and classroom teacher ● Encourage the use of creativity to ask higher level questions ● Provide opportunities to develop depth and breadth of knowledge in a self-selected subject area ● Opportunities for specialized learning centers for skill work

Grade 6 US History Curriculum (i.e., summary of standards/content instructed)	**Instructional Methods & Practices**
Curriculum In the third quarter, we explored the major events, people, and themes of American history from early Westward expansion through post-Reconstruction. Our major focus was the rise in tension that led to the Civil War and the aftermath of the Civil War.	**Differentiation Strategies Offered** ● Creation of a choice board to provide extension opportunities, which included: ○ Links to current events ○ Additional readings for historical figures ○ Virtual field trips ○ Newsela text sets for historical eras

	● Biographical research on key figures for Civil War ○ Self-selected research topics from a variety of choices (political, military, social) ○ Students could work alone or in groups ○ Information presented to class orally ○ Opportunities for additional research through extension slides on assignment template ● Gallery Walk for Civil War Effects - students generated a list of effects by category ● Primary source analysis for Soldier Perspective in the Civil War and Reconstruction ○ Sources differentiated by type (video, written, musical) ○ Sources differentiated for appropriate challenge level ○ Utilized spiraling questions to allow all students to access primary sources ○ Asked reflection questions that allowed students to understand progress in and backlash to Reconstruction/post-Reconstruction era
Grade 7 Civics and Economics Curriculum (i.e., summary of standards/content instructed)	**Instructional Methods & Practices**
Curriculum **Judicial Branch** ● Organization of the United States judicial system at the state and federal ● Understood how judicial review is an important check on the legislative and executive branches of government ● Analyzed sources to create diagrams, tables, charts, graphs/ spreadsheets to explain the procedures of the civil court system. ● Analyzed the procedures of the criminal court system. ● Explained what due process is and what amendments provide due process protections using content vocabulary ● Understood the role and importance of citizens in the Judicial Branch	**Differentiation Strategies Offered** ● Individualized product options based on ability and interest ● Mock Trial ○ Analysis of evidence ○ Collaborative teamwork to build evidence based arguments for court cases ○ Oral Presentation of arguments ● Higher order thinking activities: Mock Trials, participation on a jury, evidence based writing, analysis of case studies, analysis of the role of individuals and biases in a jury ● Student choice for various activities including a Choice Board on Canvas linked to curriculum including current events, videos, articles and other areas of interest ● Extension opportunities which extend the learning of Civics and Economics ideas and link to real world application ● drawing conclusions about whether due process is being followed or not given a scenario or case study

Grade 8 World Geography **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum Regional Units: ● Latin America ● Sub-Saharan Africa ● East / South / Southeast Asia ● Southwest Asia / North Africa / Central Asia Applying concepts from Physical, Cultural, Economic, Demographic, and Political geography to specific regions. ● Also includes coverage of historical context and continued skill practice including causation, evidence/analysis, map reading, comparative thinking, and so forth	**Differentiation Strategies Offered:** ● Southwest Asia / North Africa / Central Asia project-based-unit offers many opportunities for student choice and self-differentiation ○ Choice of partner, state, depth of research, focus topics, artifact creation, theme for timeline, etc. ○ Many opportunities for independent research beyond and deeper than the provided curated links ○ Opportunities for creative outlets across multiple disciplines for artifact creation ● Regional news circuit assignments with a focus on modern and current assets and challenges provide additional optional resources ○ varied extension choice opportunities for students to delve into other relevant topics or investigate topics of interest more deeply ● East / South / Southeast Asia Socratic Seminar challenged students to create mutual understandings with peers of similar verbal strength ○ Students provided supporting article with varying lexile options ○ Students encouraged to engage in outside research to support their analyses ○ Students allowed to prepare answers to varied questions based on their interests and strengths ● Africa Cultural Investigations gave students the opportunity to research and comparatively analyze states within distinct subregions of Sub-Saharan Africa ○ Optional project ○ Choice of subregion, countries, number of countries compared, cultural characteristics compared, format of comparisons ● Optional readings to enhance and deepen students' understanding ● Additional evaluation and summation practice through optional note-taking exercises

Grade 6 Science **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum: Water (properties of water and water distribution) & Weather (the atmosphere, heat transfer, air movement, measuring and predicting weather) ● 6.6: The student will investigate and understand that water has unique physical properties and has a role in the natural and human-made environment. ● 6.8: The student will investigate and understand that land and water have roles in watershed systems. ● 6.4: The student will investigate and understand that there are basic sources of energy and that energy can be transformed. ● 6.7: The student will investigate and understand that air has properties and that Earth's atmosphere has structure and is dynamic.	**Differentiation Strategies Offered** ● Practice with library research, applying the scientific method through hands-on activities and online simulations, and designing presentations. These strategies build student critical thinking skills to successfully design and participate in the Independent Science Project and Swanson Science Fair as early as 7th-grade. ● For the remainder of the school year, students will continue with their independent research project by preparing a presentation. Students will present their research to their science teacher and peers. ● Weekly differentiated class activities that ask higher order thinking questions and/or provide extension opportunities or challenge questions. Students are offered the option between 'Extension' and 'Skill Builder' activities a few times a quarter.
Grade 7 Science **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum ● LS.10: Investigate and understand that organisms reproduce and transmit genetic information to new generations. ● LS.2 d: Distinguish between processes of mitosis and meiosis and sexual/asexual reproduction. ● LS.11: Investigate and understand that populations of organisms can change over time (mutation, adaptation, natural selection, and extinction change populations) ● LS.3: Investigate and understand levels of	**Differentiation Strategies Offered** ● Analyzed pre-assessment data to differentiate based on prior knowledge. ● Encouraged independent exploration through use of online simulations and hands-on lab activities to understand DNA structure through strawberry extraction lab; and molecular modeling with beads and online tools. ● Encouraged group exploration of evolutionary concepts through lab activities, station exploration, and manipulatives. ● Explored the topic of bioethics through a scaffolded reading assignment and discussion.

structural organization in living things (patterns of cellular organization support life processes; complexity depends on unicellular/multicellular organisms; similar characteristics determine the classification of organisms).	• Provided tiered independent projects through a choice board to understand and classify living things according to shared characteristics. • Expanded content knowledge through use of Canvas resources such as Gizmos, PBS Learning, CK-12, and IXL learning tools.
Grade 8 Science **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum: We explored physical science SOLs related to Chemical Reactions, Electricity, Magnetism, Sound and Light Waves. We continued to develop science processing skills including creating models, using equations, supporting claims with evidence, describing relationships between variables, and applying knowledge to understand and improve our world.	**Differentiation Strategies Offered** • Balancing Equations Challenge Problems • Constructing and analyzing electrical systems • Analyzing current issues and applications, with a focus on local problems and solutions • A variety of performance and project-based assessments to provide evidence of student learning

Grade 6 - Math 6 **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum • Ratios and Proportional Reasoning • Equations • Inequalities	**Differentiation Strategies Offered** • Extensions (open middle, higher-order thinking questions, application problems) • Access to IXL (all grades are an option) • Challenges • Dreambox provides natural extensions when students master content • CML Contests offered • VML Contest offered • MathCounts Canvas course and after school club
Grade 6 - Pre-Algebra **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum • Ratios and Proportional Reasoning, • Linear Functions • Percents	**Differentiation Strategies Offered** • Extensions (open middle, higher-order thinking questions, application problems) • Access to IXL (all grades are an option)

	• Challenges • Dreambox provides natural extensions when students master content • CML Contests • VML Contest offered • MathCounts Canvas course and after school club
Grade 7 - Math 7 **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum • Functions Graphs, tables, equations, words for proportional and additive relationships Understand slope as a rate of change Understand y-intercept as initial value (when x = 0) • Transformations - reflections and translations of right triangles and rectangles in the coordinate plane	**Differentiation Strategies Offered** • Extensions (higher order thinking questions, application problems) • Access to IXL (all grades are an option) • Challenges • Dreambox provides natural extensions when students master content • Gifted Resource extensions such as scholastic math challenge. • MathCounts Canvas course and after school club • Intermediate Math Open opportunity • KenKen Challenges
Grade 7 - Pre-Algebra **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum • Solving single-step and multistep practical problems, using proportional reasoning, including consumer applications • Determining whether a given relation is a function • Determining the domain and range of a function. • Recognizing and describing the graph of a linear function with a slope that is positive, negative, or zero • Identifying the slope and y-intercept of a linear function given a table of values, a graph, or an equation in y = mx + b form; • Determining the independent and dependent variable, given a practical situation modeled by a linear function • Graphing a linear function given the equation in y = mx + b form • Making connections between and among	**Differentiation Strategies Offered** • Extensions (open middle, higher order thinking questions, application problems) • Access to IXL (all grades are an option) • Challenges • Dreambox provides natural extensions when students master content • CML Contests • VML Math Contest offered • Rigorous course learning 7th and 8th grade math • Gifted Resource extensions such as scholastic math challenge. • MathCounts Canvas course and after school club • Intermediate Math Open opportunity • KenKen Challenges

representations of a linear function using verbal descriptions, tables, equations, and graphs.	
Grade 7 - Algebra I Int. **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum ● Systems of Equations ○ Solving Systems of Equations by graphing, substitution, and elimination ○ Using Graphing Calculator to solve systems of equations ● Inequalities and Systems of Inequalities ○ Solving Inequalities ○ Solving Compound Inequalities ○ Solving Absolute Value Inequalities ○ Graphing and Solving Systems of Inequalities ● Radicals ○ Simplifying Square Roots of Monomial Expressions ○ Simplifying Cube Roots of Monomial Expressions ○ Performing Operations with Radicals including adding, subtracting, multiplying and dividing (including rationalizing denominator) ● Polynomials ○ Using Algebra Tiles to Model Polynomials and Perform Operations with Polynomials ○ Add, subtract, multiply, and divide polynomials algebraically (including division resulting in non-zero remainder)	**Differentiation Strategies Offered** ● Higher order of thinking Number Sense Routines ● Concept exploration activities prior to introduction of topic ● Higher order of thinking practice sets ● Optional practice activities prior to assessments ● Use of Desmos Graphing Calculator ● Spiral Review ● CML Contests ● VML Contest offered ● MathCounts Canvas course and after school club ● Intermediate Math Open opportunity
Grade 8 Pre-Algebra **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**
Curriculum ● Graphing/Writing Equations of Lines in Slope - Intercept Form ● Solving Equations Involving Angle Relationships ● Applying Pythagorean Theorem	**Differentiation Strategies Offered** ● Spiral Review ● Use of notecards ● Extension activity applying concepts rate of change by using a motion detector ● MathCounts Canvas course and after school club ● VML Math Contest Offered

	• After school support on Tuesdays and Thursdays for questions/answers on topics and assignments and study support for assessments • Intermediate Math Open opportunity
Grade 8 Algebra I **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**

Curriculum
• Systems of Equations
  ○ Solving Systems of Equations by graphing, substitution, and elimination
  ○ Using Graphing Calculator to solve systems of equations
• Inequalities and Systems of Inequalities
  ○ Solving Inequalities
  ○ Graphing and Solving Systems of Inequalities
• Radicals
  ○ Simplifying Square Roots of Monomial Expressions
  ○ Simplifying Cube Roots of Integers
  ○ Performing Operations with Radicals including adding, subtracting, and multiplying
• Polynomials
  ○ Using Algebra Tiles to Model Polynomials and Perform Operations with Polynomials
  ○ Add, subtract, multiply and divide polynomials algebraically
	Differentiation Strategies Offered
	• Use of Desmos Graphing Calculator
	• Spiral Review
	• CML Contests
	• VML Contest offered
	• MathCounts Canvas course and after school club
	• Intermediate Math Open opportunity

Grade 8 Algebra I Int. **Curriculum (i.e., summary of standards/content instructed)**	**Instructional** **Methods & Practices**

Curriculum
• Systems of Equations
  ○ Solving Systems of Equations by graphing, substitution, and elimination
  ○ Using Graphing Calculator to solve systems of equations
• Inequalities and Systems of Inequalities
  ○ Solving Inequalities
  ○ Solving Compound Inequalities
	Differentiation Strategies Offered
	• Higher order of thinking Number Sense Routines
	• Concept exploration activities prior to introduction of topic
	• Higher order of thinking practice sets
	• Optional practice activities prior to assessments
	• Use of Desmos Graphing Calculator
	• Spiral Review
	• CML Contests

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Solving Absolute Value Inequalities
Graphing and Solving Systems of Inequalities

Radicals

Simplifying Square Roots of Monomial Expressions
Simplifying Cube Roots of Monomial Expressions
Performing Operations with Radicals including adding, subtracting, multiplying and dividing (including rationalizing denominator)

Polynomials

Using Algebra Tiles to Model Polynomials and Perform Operations with Polynomials
Add, subtract, multiply and divide polynomials algebraically (including division resulting in non-zero remainder)

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VML Contest offered
MathCounts Canvas course and after school club
Intermediate Math Open opportunity

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<td>Grade 8 Geometry Int.
Curriculum (i.e., summary of standards/content instructed)</td>
<td>Instructional
Methods & Practices</td>
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Curriculum

Relationships among triangles
Similar Triangles
Right Triangles

Introduction to Trigonometry

Circles

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Differentiation Strategies Offered

Spiral Review
Construction Project that reinforces unit of study
Unit Circle Project to reinforce and expand on trigonometry
CML Contest
VML Contest offered
MathCounts Canvas course and after school club
Intermediate Math Open opportunity

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